

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant: KUKULKA et al. )  
Application No.: n/a ) Group Art Unit: n/a  
Filed: July 7, 2003 ) Examiner: n/a

For: SOLAR CELL STRUCTURE WITH SOLAR CELLS HAVING REVERSE-BIAS  
PROTECTION USING AN IMPLANTED CURRENT SHUNT

Mail Stop PATENT APPLICATION  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**INFORMATION DISCLOSURE STATEMENT**

SIR:

The following are included with this Information Disclosure Statement:

- ☒ **A. PTO/SB/08**
- ☐ **B. CERTIFICATION**  
(37 C.F.R. 1.97(c)-before final Office Action or allowance)
- ☐ **C. \$180.00 FEE PAYMENT**  
(37 C.F.R. 1.97(c)-before final Office Action or allowance)
- ☐ **D. \$180.00 PETITION, CERTIFICATION & PETITION FEE  
PAYMENT**  
(37 C.F.R.1.97(d)-before issue fee payment)

The following are submitted in the above-identified application in compliance with  
37 CFR 1.98:

- ☒ **I.** A copy of each listed U.S. Patent [1.98(a)(2)(i)].
- ☐ **II.** A copy of each listed foreign patent and/or published foreign patent  
application. For each listed foreign patent and/or published foreign patent  
application [1.98(a)(2)]:
  - ☐ a) the English language version or an English translation if not  
published in English, if available (see PTO-1449)[1.98(a)(3)];  
and/or

- ☐ (b) U.S. counterpart patents or English language equivalents of the foreign patents or published foreign patent applications (see PTO-1449); and/or
- ☐ (c) a concise explanation of the relevance of the listed patents, publications or other information (see PTO-1449, foreign search report or other, attached), as it is presently understood by the person signing this disclosure, since no English translation is currently available[1.98(a)(3)].

☐ III. A copy of each listed publication, other than published foreign applications. For each listed publication [1.98(a)(2)]:

- ☐ (a) an English translation, if available, when the original publication is not in the English language (see PTO-1449)[1.98(a)(3)];
- ☐ (b) a concise explanation of the listed publications (see PTO-1449), as it is presently understood by the person signing this disclosure, since no English translation is currently available [1.98(a)(3)].

☐ IV. For any other listed information, a copy of the information or that portion which caused it to be listed (see PTO-1449)[1.98(a)(2)(iii)].

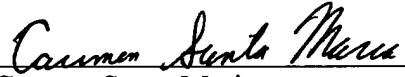
☐ V. Each listed U.S. Patent, Publication or other information that was previously cited by or submitted to the Office in a prior application, which application is relied upon for an earlier filing date under 35 U.S.C. § 120 [1.98(d)].

This information is submitted in the above-identified application in compliance with 37 C.F.R. 1.97 because:

- ☒ 1. This information disclosure is submitted within three months of the filing date of the application, or before the mailing date of the first office action on the merits of the application [1.97(b)].
- ☐ 2. This information disclosure is submitted before the mailing date of a final action in this application under 1.113[1.97(c)] and the requisite statement or fee is provided (see items 6 or 7 below).
- ☐ 3. This information disclosure is submitted before the mailing date of a notice of allowance under 1.311 [1.97(c)] and the requisite statement or fee is provided (see items 6 or 7 below).
- ☐ 4. This information disclosure is submitted after the mailing date of a final action under 1.113 [1.97(d)] and the requisite statement and fee is provided (see items 6 and 8 below).

- ☐ 5. This information disclosure is submitted after the mailing date of a notice of allowance under 1.311, but before the payment of the issue fee [1.97(d)] and the requisite statement and fee is provided (see items 6 and 8 below).
- ☐ 6. This information disclosure statement is submitted with the statement required for items 2, 3, 4 or 5 above [1.97(c), (d), (e)]:
- ☐ I, , hereby state the following:
- ☐ Each item of information contained in this information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this statement.
- ☐ No item of information contained in this information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application and, to the knowledge of the person signing this certification after making reasonable inquiry, no item of information contained in this information disclosure was known to any individual designated in 1.56(c) more than three months prior to the filing of this information disclosure statement.
- ☐ 7. This information disclosure statement is submitted with the fee of \$180 set forth in 1.17(p) [see items 2 and 3 above]. Please charge this fee and any other fees associated with this application to Deposit Account No. 50-1059. (Please note, no fee is required for items 2 and 3 above if the Item 6 statement is provided).
- ☐ 8. Please charge this fee and any other fees associated with this application to Deposit Account No. 50-1059.

Respectfully submitted,

  
Carmen Santa Maria  
Reg. No. 33,453

Substitute for form 1449A/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Sheet 1 of 1

**Complete if Known**

Application Number	
Filing Date	July 7, 2003
First Named Inventor	KUKULKA et al.
Group Art Unit	n/a
Examiner Name	n/a
Attorney Docket Number	PD-01-946 (21797-0003)

**U.S. PATENT DOCUMENTS**

Examiner Initials *	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number - Kind Code <sup>2</sup> (if known)			
	A	US-5,330,585	07-19-1994	Chang et al.	
	B	US- 5,048,038	09-10-1991	Brennan et al.	
	C	US- 4,473,836	09-25-1984	Chamberlain	
	D	US- 4,321,099	03-23-1982	Stim et al.	
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**FOREIGN PATENT DOCUMENTS**

Examiner Initials *	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>3</sup> - Number <sup>4</sup> - Kind Code <sup>5</sup> (if known)				

Examiner  
SignatureDate  
Considered

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04.

<sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.